

THE SATOR SQUARE REVISITED

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What song the Sirens sang, or what name Achilles assumed when he hid himself among women, though puzzling questions, are not beyond all conjecture.

--Sir Thomas Browne, Urn Burial; or Hydriotaphia (1658)

In the November 1979 Word Ways there was an interesting and challenging article by Dmitri A. Borgmann called "Palindromes: The Rotas Square."

I was glad to see the Master Logologist return to the problem of the Sator square, about which he said in his Language on Vacation (p. 208), "The treatment we have given the 'Sator' square is far from adequate, partly for lack of space, partly because we don't happen to care for it. To us, it is a symbol of imperfection, of failure to achieve a desired goal, and we want to dissociate ourselves from it." Now Mr. Borgmann has given us further background on the Sator square, adducing new literature and drawing new conclusions. He seems to have overcome his aversion to this famed square, and his bringing the problem to the fore again leads me to unveil a solution, or at least a hypothesis, of mine which will have to be seriously dealt with in any future attempt to unravel the enigma which this palindrome has for so long presented.

Two thoughts in Mr. Borgmann's last article are most pregnant: the Sator square is a Christian symbol, "a secret sign by which believers could recognize each other without revealing their identity as Christians", and it has Greek affinities.

I have never seen a convincing translation or interpretation of SATOR AREPO TENET OPERA ROTAS. Some suggested ones are:

- (1) The sower is at the plough; the work holds (i.e., occupies) the wheels. But is arepo actually the ablative of arepum or arepus, which is said to mean a "wheeled plough"? The word does indeed look like something from some Italian dialect or Celtic tongue, but is it actually attested? In any case, the word opera ("work") is plural, while tenet ("holds") is singular. What is this connection between sower and plough, anyway? Is it not true that the sowing comes after the ploughing and the sower cannot guide the plough and broadcast the seed at the same time?

- (2) Arepo, the sower, holds the work and the wheels. Is this a hendiadys for "holds the working plough" ?
- (3) The sower at the plough holds the wheels at/as work. For this should we not have the form opere, if not operibus?

And so it goes. Any translation is highly unconvincing with its talk about a sower who is ploughing or is named Arepo or who is monkeying around with a wheeled plough.

Now let us recall the two pregnant thoughts from Mr. Borgmann's research: Christianity and Graecism.

If a Christian were composing a secret palindrome who or what might be foremost in his thoughts? I suggest that it would be the Savior -- "unto the Jews a stumbling-block and unto the Greeks foolishness" (I Corinthians 1:23) in St. Paul's words.

Now, the Greek word for Savior is SOTER -- remarkably like SATOR. If an early Greek Christian were about to construct a palindrome, might he not begin it with that word? And if so, would he not have to end it with the letters RETOS? Yes, that is a distinct possibility, especially when we learn that RETOS means not only "expressly" (I Timothy 4:1), but also "covenantedly" or "in a covenanted manner" (cf. Liddell and Scott). The New Testament is the New Covenant. It is auspicious that our conjectured Christian Greek reconstruction begins with these two key words.

The Sator square is unusual in that it represents a palindrome which begins with a consonant, continues with a vowel, and then goes on alternating consonant and vowel for twenty-five letters. Further, the square has the following structure, with a Greek cross composed of the intersecting TENETs and of the bare E's in the vowel matrix, while lines joining the A's and O's of that matrix give a St. Andrew's cross:

S	A	T	O	R		S		T		R		A		O	
A	R	E	P	O			R		P			A		E	O
T	E	N	E	T	=	T		N		T	+		E		E
O	P	E	R	A			P		R			O		E	A
R	O	T	A	S		R		T		S			O		A

If we assume that our SOTER and RETOS were the starting points for an original Greek palindromic square, we can reconstruct the square at the left below. The Latin O's have replaced the Latin A's, and the Latin E's have replaced the Latin O's. Leaving the A's nothing else to do but move to the original sites of the E's, in the central square below. Since the consonants around the edges in both the Latin and our conjectured Christian Greek reconstruction are the same, let us keep the con-

S	O	T	E	R		S	O	T	E	R		S	O	T	E	R
O			E			O		A		E		O	R	A	P	E
T			T			T	A		A	T		T	A	N	A	T
E			O			E		A		O		E	P	A	R	O
R	E	T	O	S		R	E	T	O	S		R	E	T	O	S

sonant matrix the same in both squares, resulting in the square at the right on the preceding page. If our reconstruction is correct this is the original Sator square. It was altered to the Latin version just in order to hide its Christian origin and serve as the "secret sign" of which Mr. Borgmann speaks.

But what does the square mean in Greek? It is all rather simple, and each word can be found in the standard Greek-English Lexicon by Liddell and Scott. For the time being we give everything in transliteration, taking no note of long and short vowels, which will be accounted for later on. We can dissect the Greek square as follows:

SOTER ORA PE T' ANAT' EPARO RETOS

The apostrophes represent vowels elided in hiatus; hence the fuller form

SOTER ORA PE TA ANATA EPARO RETOS

Here is the lexicon of this sentence (in Latin alphabetical order):

- ANATA - 'Things that (1) cause no harm and (2) do not suffer harm' (exactly like the active and passive meanings of harmless)
- EPARO - Future first person singular of Greek epairo, 'I will lift up'
- ORA - 'Time' (ultimate source of English hour); there is an initial h sound or "rough breathing" in Greek, which is not represented by a letter of the alphabet
- PE - Preposition with the accusative case (a shortened form of the form PEDA found in Aeolic, Doric, and other Greek dialects and equivalent to standard META; the form PE is used before initial T's and D's), 'after, according to'
- RETOS - 'Expressly, as covenanted, as stated' (see remark on "rough breathing" above; every initial Greek rho has such a breathing)
- SOTER - 'Savior'
- TA - 'The' (neuter plural definite article)

I suggest the following translation: (I am the) Savior; (my) time accords with things harmless; I will lift up as covenanted.

The central cross of the whole square is centered on the intersecting TANATs -- TA ANATA -- things that suffer no harm and cause no harm, i.e., the millennial estate predicted in Isaiah 11:6, "The wolf also shall dwell with the lamb, and the leopard shall lie down with the kid; and the calf and the young lion and the fatling together; and a little child shall lead them." In other words -- universal peace and harmony, a much stronger idea than the colorless TENET 'holds'.

Now to consider some objections that are sure to be raised:

- (1) The E in EPARO is short (an epsilon), while its intersecting E in SOTER is long (an eta); the E in PE is an epsilon, while the intersecting E in RETOS is an eta. My answer is that Greek spelling had not been thoroughly standardized at the early time that this

palindrome was composed. The palindrome may also be the work of a dialect speaker, perhaps from Lesbos, who was not completely literate (PE occurs in the works of Sappho of Lesbos).

- (2) ORA and RETOS have rough breathings. As noted above, the rough breathing is not represented by a separate letter of the alphabet and, like the accents, was often omitted in antiquity.

From this brief exposition I think it is clear that the Sator square is but an altered version of the Soter square. No coherent sense can be made of the Sator square, while the Soter square, as will be shown below, has an even higher order of symmetry and symbolism than already noted.

Let us approach the composition of the Soter square from another aspect than that of showing it to be an alteration of the Sator square. At the same time let us take into account the remarkable PATERNOSTER cross with its terminal A's and O's (alphas and omegas) into which the Sator square may be rearranged. It is almost ineluctable that, starting with the outline square displayed two pages earlier, the square can be completed as we have conjectured.

First, I believe that no other vowel than A	T	
could be used to complete the complement of	A	
vowels in lines 2, 3, and 4 to give the beginnings	T A A T	
of the Greek cross at the right. In the Greek	A	
square, the letters T and A play the same role	T	

that the letters A and O do in the PATERNOSTER cross. These letters stand for alpha and omega, the first and last letters of the Greek alphabet, used symbolically in the last book of the Bible to represent the beginning and the end. This symbolical use of letters is a very Semitic (Hebrew) characteristic: remember the acrostic poems in the Bible (Psalm 119 is the prime example), the jot and tittle (the Hebrew letter yod and the excrescences separating letters of the Hebrew alphabet) used as symbols of very little things, and the aleph and tau (the first and last letters of the Hebrew alphabet, used to start and end the book of Nahum). In other words, the A and T of the Soter square were deliberately placed in the Greek cross to denote the beginning and the end, just as the A and O in the PATERNOSTER one.

With this much of the Soter square dictated, as it were, the remaining five letters were also equally dictated, as the only ones that could complete the square so as to give a message in consonance with SOTER.

The truth of the foregoing statement becomes even more apparent if we discard the idea that the composer of the Soter square was primarily an uneducated man from some Greek dialect area that used the preposition PE and instead assume that he, as the aleph-tau argument makes undeniable, was a man of some considerable education, as wordsters often are -- and as they particularly were some 2000 years ago.

The composer may have known Hebrew; he may with even more likelihood have also known Latin. If he did, it could hardly have escaped his attention that the word SOTER contains the letters O, S, T, E, R, which

are the final ones of the Latin noster 'our' and form an ending which is hardly found in any other common word in that language. Among Latin Christians no other word occurs with noster so often as pater. This connection may well have suggested the N, P, P, R, R to complete the Soter square. We might even go farther and say that the Soter square was written in Greek in transliteration in Latin letters. This would get rid of any possible captiousness with regard to the epsilons and etas. But the Greek square written in Latin letters was the original. This was transmogrified into a Latin square which makes no real sense so that it could serve as a secret symbol.

That A PATERNOSTER O can be found by rearranging the Latin is supporting proof of the elegance of the whole Soter square. Here we are face to face with an exemplification of Goethe's remark that "Everything perfect in its kind transcends its kind." The start was made with SOTER and everything flowed from that. The sparks struck by this stroke of linguistic and logological genius are still with us today.

Much more may undoubtedly be found in the Soter and Sator squares to defend my thesis, but I believe this brief treatment has proven that my conjectures must be treated in any further discussion of the square.

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Philip M. Cohen, 726 Golf Course Road, Aliquippa, PA 15001 seeks a set of the eight-volume Normal and Reverse English Word List, prepared by A. F. Brown under an Air Force Contract. He is also looking for a copy of the Times Index-Gazetteer.

The editor has available for sale used copies of Dmitri Borgmann's two books, Language on Vacation (Scribner's, 1965) and Beyond Language (Scribner's, 1967) for \$4.50 apiece.